

REMARKS

The Applicant respectfully requests reconsideration of the objections and rejections set forth in the Final Office Action dated August 9, 2004.

The Objections to Claims 1-36:

Claims 1-36 have been objected to for the reasons set forth in the Office Action. The Applicants have amended these claims to replace the term “RAM device” with the term “contact device”.

The Rejection under 35 U.S.C §102(b):

The Examiner has rejected claims 1, 9, and 37-39 under 35 USC §102(b) as being anticipated by Wolf et al., and has further rejected claims 53-54 under 35 USC §102(b) as being anticipated by Johnston et. al. In view of the above-indicated amendments and the forgoing remarks, the Applicants respectfully disagree.

Briefly, as amended, exemplary claim 1 recites a high pressure fluid fitting assembly adapted for a fluid-tight coupling of a tube member to a connector member having a receiving port defined by an interior sealing wall and a bottom end wall. The receiving port of the connector member is formed for sliding receipt of the tube member until a distal end thereof seats against the bottom end wall. The connector member further defines a passage extending therethrough and terminating in the receiving port. The fluid fitting assembly includes a contact device having proximal surface and an opposite distal surface facing toward the connector member. An interior alignment wall thereof defines an alignment passage extending from the proximal face to the distal face for sliding receipt of the tube member therethrough.

The fluid fitting further includes a ferrule device having a proximal tube engaging portion, an opposite distal sealing portion and a tube receiving passage. The passage extends from the tube engaging portion to the sealing portion, and is formed for receipt of the tube member therethrough. The tube engaging portion is further formed and dimensioned to contact the contact device alignment wall and the sealing portion is also formed and dimensioned to contact the connector member sealing wall.

Hence, when a compression force is increasingly applied to the contact device in the direction toward the connector member, the contact device alignment wall non-rotationally contacts the ferrule device tube engaging portion in manner causing an interior gripping surface thereof to increasingly radially grip the tube member for movement of the ferrule device and the contact device, as a unit, toward the connector member.

Accordingly, since the contact device non-rotationally (linear) contact the ferrule device, rotational forces are not imparted upon the ferrule, and hence the tube member. As set forth in the present pending application at page 15, lines 19-27:

As the spanner nut is increasingly threaded, the rotational force applied to the spanner nut is translated to an axial compression force acting upon the RAM device 28 (in the direction of arrows 40) through the contact between the spanner nut annular under-shoulder 72 and the RAM device annular contact shoulder 73. As the proximal engaging portion 36 of the ferrule device axially slides into the ferrule receiving recess 58 of the RAM device 28, the contact rim 65 of the ferrule device engages the tapered contacting wall 56 of the RAM device, causing inward radial movement of the individual lobe portions 67 of the engaging portion 36 in the direction of arrows 41.

In accordance with the present invention, while the ferrule device does clamp down upon the tube member, it is not meant to deform the tube member to form a seal like the current design do. If rotational forces were imparted upon the tube member walls, rotational deformation of the walls would occur. Rather, the cooperation between the components increasingly urges the ferrule device sealing portion into fluid sealing engagement with the connector member sealing wall to fluidly couple the tube

member conduit to the connector member passage, and increasingly urges the distal end of the tube member into seated engagement with the bottom end wall of the connector member. Hence, the ferrules themselves may be reused over and over when removed since they are not deformed, and do not deform the tube member.

The device of Wolf, on the other hand, provides nut 20 that contacts the collet 38 in a rotational manner to engage the threaded surface 76, and that of threaded surface 66 of the connector body 12 (col. 3, lines 3-8). Hence, rotational forces are imparted upon wedges 48 through the rotational contact between nut camming surface 26 and collet camming surface 46, which consequently functions to deform the tube member. Also, the tube connector assembly of Wolf discloses a two part ferrule device 28, 38, as opposed to the single ferrule of the present invention, that increased complexity and fabrication costs.

In view of the foregoing arguments and amendments, withdrawal of the §102(b) rejection is respectfully requested.

Regarding claim 53, the Applicant has combined the limitations of claim 55 which the Examiner has indicated as allowable.

New Claims 56-63:

New claim 56 is essentially Claim 2 which the Examiner has indicated would be allowed if rewritten in independent form. Dependent Claims 57-63 essentially reflect the subject matter of claims 3-9.

Conclusion

In light of the above amendments and remarks, the Applicants respectfully request that the Examiner reconsider this application with a view towards allowance. It

is believed that all claims now pending and all new claims fully and patently define the subject invention over the cited art of record and are in condition for allowance.

If the Examiner has any questions concerning this case, the Examiner is respectfully requested to contact Michael L. Louie at (510) 843-6200.

The Commissioner is hereby authorized to charge any additional fees, including any extension fees, which may be required or credit any overpayment directly to the account of the undersigned, No. 50-0388 (Order No. RHE1P004).

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP

By Michael L. Louie
Michael L. Louie
Reg. No. 36,988

P.O. Box 778
Berkeley, CA 94704-0778
Telephone: (510) 843-6200